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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL C. FISCHER and JOSH HOGAN

Appeal 2007-3247
Application 09/923,737
Technology Center 2600

Decided: February 7, 2008

Before: MAHSHID D. SAADAT, ROBERT E. NAPPI and KEVIN F. TURNER, *Administrative Patent Judges*.

TURNER, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from a final rejection of claims 1-16. We have jurisdiction under 35 U.S.C. § 6(b). We affirm the Examiner's rejection.

STATEMENT OF CASE

Appellants disclose a method and a system for implementing a rewritable format for disk based data storage devices. A timing reference in the disk format of the medium is used to bring the write clock into synchronism with the data bit clock timing. (Specification 4: 2-6).

The independent claim 1, which is deemed to be representative, reads as follows:

> 1. In a disk-based data storage system, a method for synchronizing newly recorded data with previously recorded data, comprising:
>
> measuring a first difference between a wobble reference signal and a read clock of previously recorded data;
>
> writing test data on a test track to measure a second difference between the wobble reference signal and the test data, the test data written synchronous with a write clock;
>
> determining a delay offset by comparing the first difference and the second difference using the wobble reference signal, such that an appropriate delay offset is calculated utilizing only said wobble reference signal, said read clock of previously recorded data and said test data; and
>
> writing new data using the write clock and the delay offset such that the new data is synchronized with the previously recorded data.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Taussig	US 6,636,467 B1	Oct. 21, 2003

The Examiner rejected claims 1-16 under 35 U.S.C. § 102(e) as being anticipated by Taussig.

Appellants contend that the Examiner erred in indicating that the claimed subject matter would have been anticipated by Taussig. More specifically, Appellants have argued that certain claim elements are not

taught by Taussig and that the rejection of claims 1-16 is improper. (Br. 9-13). The Examiner finds that all elements of the rejected claims can be found in Taussig. (Answer 5-7).

Appellants have argued that the same elements of independent claims 1, 6, 11, and 16 are not taught by Taussig and have argued the patentability of the dependent claims only with respect to their dependence on the independent claims. (Br. 13). As such, we find that all of the claims stand or fall together and we take claim 1 as the representative claim.

ISSUE

Have Appellants shown that the Examiner has failed to establish that all of the disputed elements of the rejected claims are taught by Taussig?

FINDINGS OF FACT

1. Appellants disclose a method for synchronizing newly recorded data with previously recorded data. The method uses a first difference (dto) between a wobble reference signal and previously recorded data (tro). Test data is written, synchronously with a write clock, on a test track to measure a second difference (dtn) between the wobble reference signal (twb) and the test data (trn). An offset value (dtw) is determined by comparing the first difference and the second difference. New data is then written using the write clock and the offset value such that the new data is synchronized with the old data. (Specification 10: 20-30; Figs. 2 and 3).

2. Independent claim 1 recites, in part, "such that an appropriate delay offset (dtw) is calculated utilizing only said wobble reference signal (twb),

said read clock of previously recorded data (tro) and said test data (trn)," (reference abbreviations added).

3. Taussig is directed to a method and apparatus for calibrating write timing of recorded information. The process calibrates the timing of bits written on DVD formats by different recording devices so that the start position of edited data sequences is repeatably collocated with previous data sequences with greater precision. (Abstract; col. 2, ll. 13-14).

4. Taussig details that: 1) the head of the recorder reads the calibration data sequence, and measures the timing offset between the beginning of the data sequences, as measured by data channel, and the address marker, as measured by clock channel. Thereafter, the head writes a test data sequence in a zone near the calibration data sequence, using the wobble clock as a time reference. 2) The head of the recorder reads the test data sequence, and measures a second timing offset between the data channel and the clock channel. 3) The measured timing offsets of the calibration and test data sequences are compared, where this procedure cancels out the timing offsets of the read process and is equal to the actual difference in their timing. The data channel and the clock channel output oscillating signals having a time offset, and hence a phase offset. A measure of the phase difference between the data channel and the clock channel is produced. 4) A delay of the write driver relative to the clock is adjusted by the amount determined in the prior process. (Col. 5, l. 52 – col. 6, l. 4; col. 7, l. 50 – col. 8, l. 2; Figs. 5 and 7, elements 530, 540, 542, 544, 705, 710 and 725).

PRINCIPLES OF LAW

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros., Inc. v. Union Oil Co. of California*, 814 F.2d 628, 631, (Fed. Cir. 1987).

Although claims of issued patents are interpreted in light of the specification, prosecution history, prior art and other claims, this is not the mode of claim interpretation to be applied during examination. During examination, the claims must be interpreted as broadly as their terms reasonably allow. *In re American Academy of Science Tech Center*, 367 F.3d 1359, 1369 (Fed. Cir. 2004). However, the broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. *In re Cortright*, 165 F.3d 1353, 1358, (Fed. Cir. 1999).

ANALYSIS

Appellants acknowledge that Taussig teaches a method of determining a delay offset in writing of data to a storage medium, but allege that Taussig utilizes a "four-measurement" method to perform the same method. (Br. 10). The Examiner finds that only three measurements, equivalent to the wobble reference signal, a read clock of previously recorded data, and test data, are used in some of the embodiments disclosed in Taussig. (Answer 5). Appellants also argue that Taussig explicitly discloses the use of four variables in several equations employed to determine the delay. (Br. 11). While we and the Examiner can acknowledge that Taussig uses four signals in one embodiment, as pointed out by Appellants, we agree with the

Examiner that other embodiments, (Findings of Fact 4), detail using only three signal measurements. The alternate teachings of Taussig need not be considered since we find that all of the elements of claim 1 are disclosed by Taussig.

Additionally, Appellants argue that the independent claims provide for the utilization of the wobble reference as the starting point for the measuring process, but Taussig teaches that the measuring begins at the known point of address marker. However, the independent claims do not explicitly recite using the wobble signal as the starting point. Additionally, Taussig details that "the clock channel produces an oscillating output that directly corresponds to the wobble of the grooves," (Col. 5, ll. 17-18), so that both methods use a wobble reference as a starting point.

As such, we find that Taussig teaches all of the elements of claim 1 and we find no error in the anticipation rejection of that claim.

CONCLUSION

We conclude that Appellants have not shown that the Examiner erred in rejecting claims 1-16.

DECISION

The Examiner's rejection of claims 1-16 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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